On Defining Visual Narratives

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Abstract

Visual story-telling is a phenomenon that every society is acquainted with. The term extensively used to refer to visual story-telling in recent times is 'Visual Narrative'. The label 'Visual Narrative' is applied in a generic sense to denote anything from an illustrated story-book to motion pictures. Far from being a trivial term, 'Visual Narrative' is in reality an all encompassing idiom, it is a sub genre of Visual Studies itself. With the advancement of scholarly inquiry in the area of visual and narrative studies, there is a pressing need to establish Visual Narratives (VN) as a distinctive area of study so as to open up sub genres to critical examination. It is our endeavour to present a definition of Visual Narrative and in particular to lobby for the establishment of 'Static Visual Narrative (SVN)', 'Dynamic Visual Narrative (DVN)'and 'Interactive Visual Narrative (IVN) as sub genres of Visual Narratives.

Introduction

Visual Narrative (henceforth—'VN') is a term taken for granted to mean (quite rightly) – a combination of the two words 'Visual' and 'Narrative'. If one tries looking up the definition of the term 'Visual Narrative', chances are that one may not find it[1]; and yet VN is a topic under which intensive research has been happening over the past decades. One may not have heard of a specialized field or department called VN but one most certainly must be acquainted with terms such as – Narrative Art, Visual storytelling, Films, Pictorial stories, Illustrated stories, Comics, Sequential art, History Painting, Animation etc. What binds the above mentioned areas is the fact that they are all essentially explorations into visuals that tell stories. It is our aim in this paper to demonstrate that individual research areas (such as the ones mentioned above) that conduct independent research are in fact various forms of VNs. We thus propose the establishment of VN as a distinct category of Visual and Narrative Studies. Furthermore, we discuss three types of VNs – 'Static Visual Narrative', 'Dynamic Visual Narrative', and 'Interactive Visual Narrative (henceforth—SVN, DVN and IVN) as sub genres of VNs. As part of this paper we also undertake to define VN and its sub categories discussing each with the help of examples. It is our belief that doing this would not only unify the various areas under a single domain but also encourage sharing of knowledge between the sub fields. Moreover, a categorization of this type would open up new areas of research to students and professionals dealing with VNs.

1 Although the definition of 'Visual Narrative' is not explicitly spelled out; Julia Murray mentions a working definition of 'narrative illustration' as: the pictorial representation of or reference to one or more "events" that occur in a sequence of time and that bring about a change in the condition of at least one character (Murray, 1995:17). As we accept the term 'narrative illustration' as a synonym of 'Static Visual Narrative' we employ the point mentioned by Murray as one of the characteristics of the VN. We refrain from using the words 'narrative illustration' or 'pictorial storytelling' (words synonymously used by Murray) in favor of the much more flexible term – 'Static Visual Narrative'; the justification for which shall be provided further on in the paper.

Search for a word that signifies a visual that tells a story
Let us begin by looking at the meanings of some of the terms used by researchers that imply VNs that are established fields of study[2] —

Films: also referred to as movie[3] or motion pictures. (...) shortened form of moving picture (1896) (Harper, Online Etymology Dictionary). Movies are made up of a series of still photographs, each of which shows a slight change in motion, when projected; they give the illusion of a moving image (Pincus, 1972).

Narrative Painting: has an element of literacy,(...). In a narrative picture, the viewer is seeing a moment in a story that allows the viewer to understand what happened prior to and after the moment caught by the artist (from: http://www.humanitiesweb.org).

History Painting: is a term used to describe paintings that focus on a serious narrative or include exemplary actions. In this sense the word history relates to the Italian istoria (narrative or story). History painting is not necessarily an accurate or documentary description of actual events. Such works are often large in scale. Their subjects derive from the Bible, mythology, secular literature, or historical events. They can also be allegorical (from the website: National Gallery of Art, Washington DC).

Animation: Animation (from the Latin word, animare, to breathe life into) is the visual art of making a motion picture from a series of still drawings(Encyclopaedia of Irish and World Art).

Pictorial Narratives[4] : This term is made up of two words – Pictorial (from the word 'Picture') and Narrative. Pictorial[5] – Etymologically the word comes 1646, from the Latin word pictorius "of a painter," from Latin pictor "painter," from pp. stem of pingere "to make pictures". The noun meaning "journal in which pictures are the main feature" is first recorded 1844 ("pictorial." Online Etymology Dictionary). Narrative – This means to engage in the act of narration.

Sequential Art: A train of images deployed in sequence (Eishner, 1996:6). '(...) that deals with the arrangement of pictures or images and words to narrate a story or dramatize an idea' (Eishner, 2006:5). Eishner uses the term 'sequential art' as an art form that has its expression in the form of comic books[6] .

Comics: from the word 'Comic' originating from the Greek κωμικός, kōmikos "of or pertaining to comedy". The term derives from the mostly humorous early work in the medium, and came to apply to that form of the medium including those far from comic. In 1996, Will Eisner published Graphic Storytelling and Visual Narrative, in which he defined comic (books) as "the printed arrangement of art and balloons in sequence" (Eisner, 1996:6).

2 It is not our purpose here to present an exhaustive list of terms used, thus only those terms that are frequently used have been examined.

3 movie (American informal) a cinema film (The Oxford Dictionary, 1989:534).

4 Term used by scholars such as: Franz Wickoff, ; H.G.Gomrich, ; Whitney Davis, 1992;Virve Sarapik, 2000; Ira Westgard, 2006.

5 pictorial adj: 1. of or expressed in a picture or pictures. 2. illustrated by pictures.
picturen. 1. representation of a person or people of object(s) etc. made by painting, drawing, or photography, especially as a work of art. (1989, The Oxford Paperback Dictionary).

6 See, Eishner, Will, Comics and Sequential Art, 2006.

Scott McCloud[7] defined sequential art and comics as: "juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or to produce an aesthetic response in the viewer" (McCloud, 1993: 7-9). R. C. Harvey, in his essay Comedy at the Juncture of Word and Image, states: "...comics consist of pictorial narratives or expositions in which words (often lettered into the picture area within speech balloons) usually contribute to the meaning of the pictures and vice versa" (Harvey, 2001:76).

Narrative Illustration: the pictorial representation of or reference to one or more "events" that occur in a sequence of time and that bring about a change in the condition of at least one character [8] (Murray, 1995:17).

We do not suggest that these terms are wrong, but if examined in detail, it will be found that these terms refer to the VN in a limited way. In fact they can be grouped on the basis of particular aspects of the VN, namely:

1) Compositional nature of the VN:
Sequential Art: The word sequential alludes specifically to the aspect of arrangement.

2) With reference to the theme of the VN:
History Painting: The terms 'History' refers to the subject matter of the VN; while 'Painting' refers to the type of representation technique[9] .

3) Certain characteristic of the VN:
Comics[10] : Comics have over the years developed a distinct identity of its own with its characteristic sequential nature of the pictures, and the predominance of pictures over words. This feature distinguishes comics from picture books and other illustrated visuals.

4) Representational technique of the VN:
a) Narrative Painting, Narrative Illustration: This term can be divided into two. The first word 'narrative' is used to highlight the narrative quality of the visual much like an adjective. Narrative is used as qualifier and is added as a prefix to refer to any visual that has a narrative aspect. While the second word informs us about the graphic or material state of the visual i.e. it could be a painting, an illustration or scroll or panels etc.
b) Painting, Illustration: Many a times visuals are referred to the representation style employed to execute the story[11] . Painting for example is used with reference to the fact that some form of paint has been used to depict the story. Illustration is used to suggest the visual is figurative or graphic in nature.
c) Pictorial Art, Graphic storytelling, Pictorial storytelling: These terms again stress the pictorial and graphic quality of the visual; while the narrative aspect is suggested to in the second part of the word.
d) Animation: "action of imparting life," from Latin animationem (nom. animatio), noun of action from animatus , pp. of animare. Meaning "vitality" is from 1610s. Cinematographic sense is from 1912 (From Online Etymology Dictionary, Harper, 2010).
5) With reference to the material employed to create the VN:

7 Scott McCloud in his book, 'Understanding Comics' explores the definition of comics, its historical development and the fundamental vocabulary employed by this particular type of VN.

8 Julia Murray mentions this as working definition of 'narrative illustration'.

9 Also Religious Painting: where 'Religious' refers to the subject matter of the painting.

10 Comics is the only VN to have come to be known as a separate field in its own right

11 In such cases the fact that it is a narrative is taken for granted.

Film: This kind of VN gets its name from the equipment used to create the VN. The 'film' a rolled strip or sheet coated with light sensitive material used for taking photographs or making a motion picture (film: The Oxford Paperback Dictionary, 1989).

As can be clearly seen all of the above terms are varied aspects of (what we call) the VN[12] . While all of the above terms are apt to refer to visuals that tell stories, none of them capture the essence of the phenomenon in question[13] . Thus while they are all according to our definition essentially VNs they (each one of them) are a certain type of VN. The problem with this kind of categorization is that it is very limited in nature and restricts the study of the VN. Moreover, there are problems with each term as they are so narrowly defined. For example, a VN can have a religious theme (subject), could be painted (representation technique) on a wooden panel (medium), using the comics style and be executed in the form of an animation film. Thus we can have a combination of aspects in a single VN. This proves that the categories presently in use are not watertight. A single VN can be classified under multiple terms depending on the presence of a particular aspect. But this does not guarantee that the other aspects are absent. It is as a remedy to this shortcoming that we propose the following

1) Use of the term VN as a category at the first level to indicate any kind of visual that has narrative content.

2) Based on the functionality of the VN they can be categorised into A) SVNs, B) DVNs, C) IVNs; at the second level.

3) At the third level, one can be very precise and refer to a certain feature of the VN e.g. film, history painting, picture book, etc.

With this aim in mind we set about defining VN and its sub genres in this paper. At this point we would like to mention the reason we feel it necessary to define the VN and its sub types.

Rational for defining VN and its sub genres

The obvious question that arises is justification for the recognition of the VN as a specialized field of investigation and its sub genres. One of the main reasons why this integration is very much needed is the fact that the various categories under study are in reality one and the same phenomenon (as has been proved earlier in the paper). Acknowledgement of the VN as a unified body of investigation will facilitate cross-pollination of ideas and methodologies thus expanding the knowledge base. Once the VN is accepted as an independent body its structure so far illusive immediately surfaces. This opens up a new path of exploration that of the VN as an entity in itself. The VN can now be studied at the ideological and structural level. The SVN, DVN and IVN in turn achieve independent entity status and can be studied at various levels. An

12 Arriving at the term 'Visual Narrative (VN)':
We were in search of a word narrow enough that gives a holistic description of the phenomenon at hand and at the same time wide enough to include a wide variety of visuals that told stories. The two terms that came close to the effect we were trying to achieve were – Pictorial Narrative and Visual Narrative. We found the word 'Pictorial' limited to describing only graphic images whereas we wanted to include narrative sculpture and visual stories occurring on other objects such as bowls, panels etc. as well. Another reason that strongly affected our decision to favour the word 'visual', is the fact that the term 'pictorial' does not take into account 'text' that is sometimes part of the image. Examples of these kinds are comics, illustrated story books etc. Therefore we chose the word 'visual' over 'pictorial'; thus achieving the flexibility we were looking for. But in essence both the terms Visual Narratives and Pictorial Narratives can be used as synonyms if one wants to refer strictly to VNs that are purely pictorial in nature.

13 This can be likened to the story of the Blind men and the Elephant. While each of the Blind men was right in describing what an Elephant looked like all of them were in some way also wrong.

in-depth study of each type of the sub genres of VNs can be conducted and results compared.

VNs have up to now been investigated from various perspectives e.g. art historical, semiotic, archaeological etc. What has been lacking since a long time is the investigation into what makes a VN. What are its various components? How does it function? The defining of the VN as a conceptual body having a structure lends itself to structural examination that helps answer those questions; the answers to which will lead to further the knowledge of the construction and a better understanding of the VN. This information will be of immense benefit to students and practitioners of visual communication alike. Having said this we now move towards examining the concept of VN.

The Visual Narrative (VN)

The distinctive feature of the VN is the presence of a story. In order to form a conclusive definition & establish the term 'Visual Narratives' as a distinct genre of visual studies; we need to support our claim by specifying the manner in which we use the terms Visual, Narrative and Story.

Visual: As to what comprises a 'Visual' is quite clear and agreed upon i.e A Visual is something that can be seen using the human eye. We accept the dictionary meaning of Visual as related to the sense of sight.

Narrative / Story are terms that seem to have been used interchangeably as synonyms of each other. Our first task therefore is to relook at the terms Narrative and Story.

Narrative: Hayden White pointed out in his book The Content of the Form that the word "narrative" goes back to the ancient Sanskrit "gna", a root term that means "know" and that comes down to us through Latin words for both "knowing" ("gnarus") and "telling" ("narrow") (Cited in The Cambridge introduction to narrative[14], H. Porter Abbott, 2000: 10). There have been debates as to what constitutes a narrative without a concrete conclusion being reached. We shall therefore here enumerate only those meanings of the word 'Narrative' in the sense we feel is appropriate in the given context. Simply put, narrative is the representation of an event or a series of events (Porter Abbott, 2000:13). Murray in her paper mentions that most scholars agree 'that a fundamental marker of narrative is action, which produces change (...). Another fundamental element of narrative is time (Murray, 1998:605). Accordingly we will primarily use the word 'Narrative' - meaning – to tell a story.

Story: According to the dictionary meaning a story is - a description, either true or imagined, of a connected series of events and often, the characters involved in them (Cambridge International Dictionary of English, 1995).

Difference between a story and a narrative: A distinction is made by Hawthorn who defines a story as a sequence of events. Narrative according to him, focuses our attention on to a story, through the direct mediation of a 'telling' which we both stare at and through, which is at once central and peripheral to the experience of the story, both absent and present in the consciousness of those being told the story (Hawthorn, 1985). Scholes, Phelan and Kellogg suggest two distinguishing characteristics for a literary work to be termed as narrative: the presence of a story and a story-teller (Scholes, Phelan and Kellogg, 1988:4). 'The difference between story and narrative discourse is, (...,) a difference between two kinds of time and two kinds of order' (H. Porter Abbott, 2000:16). Seymour Chatman makes the difference between Narrative and Story to be that of 'time' and 'order' – what he calls the "chrono-logic". 'Narrative

14 See, Brian Richardson, 2000, Recent Concepts of Narrative and the Narratives of Narrative Theory.

entails movement through time not only "externally" (the duration of the presentation of a novel, film play) but also "internally" (the duration of the sequence of events that constitutes a plot). The first operates in the dimension of narrative called Discourse..., the second in that called Story(...)'(Chatman,1980). Brian Richardson marks the difference in the order of occurrence and order of presentation, which can be read as the distinction between story and narration (Richardson, 1987:300)[15] . In conclusion we can say a 'Narrative' is the representation of a story while a 'Story' is a sequence of events.

Defining a Visual Narrative

Visual Narrative can be defined as a visual that essentially and explicitly narrates a story; where –

Visual signifies – something that can be seen using the human eye.

Story signifies – a series of events linked by causality, temporality or sequence or the order of occurrence.

Narrative signifies – the act of telling a story or the story itself or the order of presentation.

Fig. 1 is an example of a Visual Narrative (Puss in Boots). The story that forms the content in this VN is 'Puss in Boots'. It is narrated over a scenes and one of these scenes is what we see in the image.

Visual Narrative (VN) is synonymous with visual stories, narrative images, picture stories, narrative pictures.

The characteristic features of a VN are:

1. The presence of a story is the most essential feature of the VN. The story could belong to any genre: fiction, mythology, fairy tale, folklore, fables, religious stories, etc. The VN in fig. 1 is a fairy tale revolving around a magical cat who wears boots called 'Puss in Boots'.

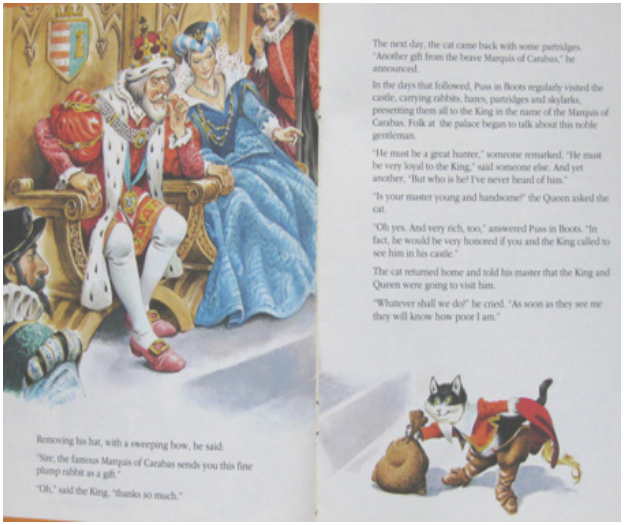
Removing his hat, with a sweeping bow, he said:
"Sire, the famous Marquis of Carabas sends you this fine plump rabbit as a gift."
"Oh," said the King, "thanks so much."
The next day, the cat came back with some partridges. "Another gift from the brave Marquis of Carabas," he announced.
In the days that followed, Puss in Boots regularly visited the castle, carrying rabbits, hares, partridges and skylarks, presenting them all to the King in the name of the Marquis of Carabas. Folk at the palace began to talk about this noble gentleman.
"He must be a great hunter," someone remarked. "He must be very loyal to the King," said someone else. And yet another, "But who is he? I've never heard of him."
"Is your master young and handsome?" the Queen asked the cat.
"Oh yes. And very rich, too," answered Puss in Boots. "In fact, he would be very honored if you and the King called to see him in his castle."
The cat returned home and told his master that the King and Queen were going to visit him.
"Whatever shall we do?" he cried. "As soon as they see me they will know how poor I am."

Fig. 1: An example of a VN– a scene from 'Puss in Boots'[16]

2. The visual is constructed with the idea of communicating a story to the onlooker. For e.g. the aim of the scene in fig.1 is to convey to the audience a visual description of an event that occurred in the story; in this case the manner in which the king and queen received the extra-ordinary cat at their court.

3. There is a presence of actors (participants). An Actor is a character in the story who performs an action. It is the most essential component of the VN. The most commonly used method of recognizing an SVN is through identifying the actor or the situation that the actors in a visual build up. If the actor is absent from the SVN the visual would be

15 Richardson makes this distinction in the context of drama.

16 Image taken from the book, 'The Mini Treasure Chest of Great Fairy Tales'; published by Tormont International Ltd. Hong Kong. Illustrations: Tony Wolf, Piero Cattaneo. The copyright of this image lies with Dami Editore, Italy.

incapable of representing an event[17] . In fig.1 we see the King, Queen and Puss in Boots, in addition we also see two courtiers – these are the actors (participants) of the visual story.

4. The VN has a 'universe[18]' of its own. The participants in fig. 1 exist in a virtual story world i.e. a universe that mimics the real or imagined world but is different from the viewer's world. The participants of the story exist in this universe that has its own time deixis and spatial dimensions.

5. A VN could be expressed on any medium e.g. paper, stone, an electronic device, etc. Demonstrating this idea are a number of VNs displayed on various materials Fig.s 2a – 2d.

Fig. 2a: VNs can be viewed on iPods '

Fig. 2b: VN on a silver bowl[19]

Fig. 2c: VN on paper[20]

17 "Events" occur in a sequence of time and that bring about a change in the condition of at least one character (Murray, 1995:17).

18 It is a world that exists within the visual narrative that is represented; it is there that a coherent grouping of people and things dwell, who are systematically connected in place and in action. Etienne Souriau explains the concept of 'universe' in the paper titled 'Time in the Plastic Arts'.

19 Leningrad, Hermitage. Silver Bowl: Scenes from Euripides. Image from the book: Kurt Weitzmann, 'Illustrations in Roll and Codex: A study of the origin and method of text illustration', 1970, Princeton University Press.

20 A page from a comic book: Edge, Way of the Rat, published by CG Entertainment, September 2002. The copyrights for this images lies with Cross Generation Entertainment, or CrossGen, was an American comic book publisher that operated from 1998 to 2004.

Fig. 2d: VN in stone[21]

To elucidate further we can say that any visual that is represented with an idea to communicate a story to the onlooker qualifies as a VN. In some cases the onlooker may fail to relate to the story presented due to a number of reasons such as differences in culture, context, language, etc. The fact that the onlooker does not know the story does not nullify the narrative quality of that visual. A good example to illustrate the point being made is a sculptural relief on a Hindu temple. A person coming from a different religious background may not be able to identify the story depicted but the sculpture will still be called a VN as it does tell a story. Similarly certain cave paintings could be VNs as they may have had oral stories (for instance – about how a group of hunters succeeded at capturing a particularly difficult prey) attached to them which are now lost.

By defining the VN we wish to mark the peculiarity from other visuals where a story can be imposed onto the visual. Visuals that fall under the VN Category are-

1. Visuals where the story depicted is expected to be so well known within the context that it does not require an accompanying text. For example murals & sculptures in temples, churches, paintings / engraving on objects.
2. Visual where the story accompanies the visual in written or aural form. e.g. comics, animated films, illustrated books, motion pictures.

Plausible Early Beginnings of VNs...

Where and how did visual story telling emerge has been lost in the looms of time[22] . The desire to commemorate significant events and the idea of pictorial depiction of a story existed by the end of the prehistoric period (Perkins, 1957: 54). We can speculatively envisage a scenario of a cave man returning from a hunt, narrating the way he brought down his prey to a group of his clans people round a fire [23]. He takes a bit of coal and makes

21 This SVN represents the story of Ravana attempting to shake Mount Kailasa a pillar in Virupaksha Temple, Pattadakkal. Photo posted by Prof. Harihara Subramanian.V at <http://stonestories.blogspot.com/>.

22 Will Eisner in his book on graphic storytelling, gives an interesting account of the story of visual story telling. See, Eishner, 1996, 'Graphic Storytelling and Visual Narrative', Poorhouse Press, NJ.

23 Although VNs developed in various parts of the word, they did so in various forms, in various mediums and on different scales. These were dependent on many factors such as for instance availability of natural material for use. Perkins mentions – 'The Babylonian artists thought always on a small scale, and

some markings on the cave wall to illustrate his point and help his audience imagine the way he went about it. Thus primarily the visual narrative works as an aid to the viewer to visualize the way the event happened.
Plausible reasons for the VNs to come into existence could be:
To explain the manner in which an event took place[24]
To give an idea of what the characters looked like i.e. size, shape, and scale[25]
To express in visual form, as a historic record of the event[26]
To serve as a social visual message to the masses[27]

As a medium to reach people who were illiterate (those not familiar with the alphabet)[28].The VN due to its visual quality makes a strong impact and has been used extensively over the years. Undisputedly a powerful medium of expression, they have their pros and cons. Some of the points in its favour is the capability to mimic the event, conditions, characters in great detail and as close to the truth (real or imagined) as possible. Being visual it has a high reach-out rate as people who are illiterate or do not know to read a particular script can still make some sense of the visual.

On the other hand VNs like other types of narratives are deeply rooted in the cultural and social practises. Due to this reason it cannot be a completely universally understood language. Designers employ culture specific artistic codes developed to represent the story in a visual form. These codes need to be decoded by the viewer to read into the VN. One requires an understanding of the norms, beliefs and functioning of the culture to which the VN belongs in order to make sense of it. Another drawback of the VN lies in the very fact that it is visual. Since purely visual signs can have multiple readings, one needs to know the story represented in the visual to interpret the VN correctly.

VNs have existed and continue to exist around the world. These are being explored from diverse perspectives within the domain of visual studies. There have been pioneering investigations in the area of VNs but as separate and isolated subjects. By defining VN as a domain we can streamline these bodies of work and integrate them into a broader framework. Prominent topics studied as VN are comics, narrative sculptures, story-book illustrations, graphic novels, animation and live action films. All of the above mentioned topics share a commonality of being visually communicated stories. VNs as one can see forms a large area, there is a dire need to categorize them so as to open up more areas of investigation.

There exists a distinction between 'arts of time' and 'arts of space'; a view to which many scholars subscribe. The

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the vehicles of artistic expression were portable objects: vases, plaques, stelae, cylinder seals. Large scale mural relief work, such as that known in Egypt from the Old Kingdom on, was impossible in alluvial Babylonia, which had no suitable stone.' (Perkins, 1957:54)

24 An excellent example of a VN that functions towards this end is the graphic novel.

25 Examples of VNs that have a descriptive aim are paintings that show Narashimha or Durga.

26 The 'Trajan Column' is a good example of this kind. Erected by Emperor Trajan himself it '(...) commemorates his war-like achievement viz., the conquest of Decebalus and the annexation of the whole of Dacia to the empire as a Roman province, after two difficult and bloody wars' (Pollen, 2005:5). See John Hungerford Pollen, A Description of the Trajan Column, 2005, Elibron Classics, London.

27 The sculptures at Bharut that tell Jataka tales were created with this aim in mind.

28 Pope Gregory the Great 'believed that the mimetic aspects of pictographic forms made stories, and the ideas they conveyed, universally communicable' (Lavin,1990:1)

'arts of space' produce static or fixed images that are two dimensional (painting) or three dimensional (sculpture); they thus lie outside the time category. They are in essence structurally distinct from music and poetry, which develop within a physically prolonged time (Francastel, 1967:182). This difference is also echoed in Indian though 'The evolution of the world means a course of constant change and modification due to this change. They are of two kinds: temporal (kriyā vivarta = action modification) and spatial (mūrti vivarta = image modification). The former indicates the state of continuity (sādhya) and the latter the state of stagnation (sidha). Pictorial art or a material image (mūrti) belong to the order of spatial modification because it is static and limited in extent, where as language (and poetry) belongs to the order of temporal modification' (Sukla, 2000: 235)[29]. The argument of the nature of temporality between the arts of time and space was first brought up by Lessing in the context of poetry and painting. Both music and graphic novels handle time, but in a radically distinct manner. It is with reference to this nature of time that discussions began in earnest[30] .

Another point of distinction is the manner in which we perceive images. In the visual world, there is a difference between passive reception and active perceiving (Arnheim, 1969: 14). Our eyes do very different things when we look and when we see, and both are necessary for visual problem solving (D. Roam, 2009:74). While viewing a film the story unfolds in front of the viewer, in the case of the comics the task of unfolding the story is left to the viewer. Both kinds of VNs are planned in different ways using dissimilar mediums. Mc Cloud elucidates the difference between comics and film –'Each successive frame of a movie is projected on exactly the same space –the screen—while each frame of comics must occupy a different space. Space does for Comics what Time does for Film' (McCloud, 1993:7). Perhaps the best approach to differentiate between the two kinds of narrative is described in the following words: 'The filmmaker says 'look I'll show you' the space maker says 'here I'll help you discover' (Rheingold, 1991, cited in Bolter and Grushin, 2000: 162, cited in Visual-Narrative and Virtual Reality).

Göran Sonesson describes 'the continuous sequence of moving pictures, as in a film, and, sometimes, on television' as 'temporal series' and 'the temporal set', ' which consists in a number of static pictures united by a more or less common theme, as in comic strips, graphic novels and photo novels. Here, temporal links are partly mimicked by traditional reading order, and partly projected by the reader.' (Sonesson, 1995)[31]

29 He goes on to state - "Painting, for its very medium and the nature of its modification is a limited sign system, and is therefore inferior to poetry, both the means (language) and manner (narrative) of representation of which indicate Time in its eternal continuity" (Ananta Charana Sukla, Art and Representation: Contributions to Contemporary Aesthetics, 2000:235), a view strikingly similar to that presented by Lessing in his Laocoon.

30 For a though provoking view point on the nature of time in VNs see Etienne Souriau 'Time in the Plastic Arts'.

31 In addition to the two kinds of Visual Narratives, Sonesson also talks about a third kind what he calls the multi-phase picture, which is a single, static picture, containing persons and events which are known to represent various phases taken from the same event series, or action scheme. Thus, the temporal link is projected onto the picture, solely from our knowledge of the story, from the title, or from recognition of logical of physical impossibility (as in the case of things you cannot do at the same time), etc.
See, Göran Sonesson, Mute Narratives: New Issues in the Study of Pictorial texts, Interart Poetics. Acts of the congress "Interart Studies: New Perspectives", Lund, May 1995. Lagerroth, Ulla-Britta, Lund, Hans, & Hedling, Erik, (eds.). Rodophi, Amsterdam & Atlanta 1997; 243-252.

We concur to the distinction made on the basis of the nature of temporarily and the difference in the manner of viewing VNs. Accordingly, we assign the term 'Dynamic Visual Narrative (DVN)' to the former and 'Static Visual Narrative (SVN)' to the later. The limits that have been indicated are physical; it is with respect to this facet that we use the word 'dynamic' and 'static' to emphasize the distinction[32] . Additional we assign the term 'Interactive Visual Narrative (IVN)' to the third type of VN, on the basis of extensive viewer interaction with the VN. Having transiently mentioned the rational on the basis of which we categorize VNs into A) SVN, B) DVN and C) IVN let us examine each of these in detail.

A) Static Visual Narrative (SVN):

Contrary to the term 'Static', SVNs do possess dynamism. But this is a different sort of 'dynamism'; the one that unlike the DVN is not present itself as a principle but one that demands of the audience to supply it. The difference lies in the perceptual experience of temporal movement (Etienne,294; Gottlieb, 1958; Gombrich, 1964; Le Poidevin, 175). In a DVN, the film unfolds in successive moments, in the case of the SVN the visual is frozen but the viewer's eyes and mind move on[33] . A good example to illustrate the movement of the mind is an illustration from Raymond Briggs's 'Father Christmas goes on Holiday' fig.3. In the visual we are presented with the principal actor– 'Father Christmas' getting out of his caravan and jumping into the lake only to discover that it is cold. While the image illustrated appears to be frozen in time, our mind (perception) makes the leap and completes the actions[34] . It is due to this faculty that we convince ourselves the actor shown in various actions, are not many people who look exactly the same enraged in various activities, but is a single character in a sequence of moments. This would be sufficient to prove to us that our minds and imagination is indeed capable of performing such tricks.

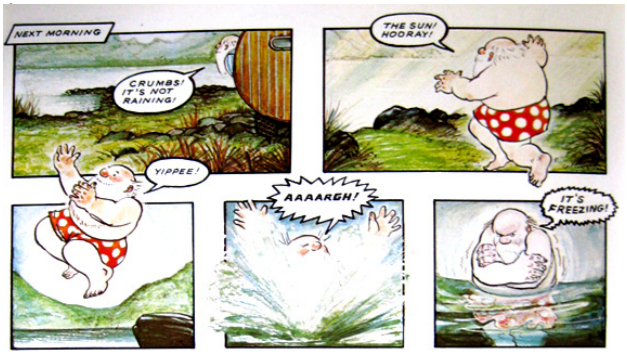


Fig.3: Man jumping into a lake and shivering[35]

Our minds can imagine and carry out mental exercises (such as, imagining a pink elephant wearing gumboots flying upside down) quite effortlessly[36] . Also the whole

32 Marie-Laure Ryan proposes a classification of Narrative Media, she distinguishes a transmissive and a semiotic definition referring to medium as a channel and a means of expression and communication. Classifying media into Temporal, Spatial and Spatio-Temporal categories. She makes the distinction between Visual / Static (which corresponds to SVN) classifying it under the Temporal category and Visual / Kinetic (which corresponds to DVN) which she places under the Spatio-Temporal category. See Marie-Laure Ryan, On Defining Narrative Media, 2003.

33 See 'Time in the Plastic Arts' Etienne Souriau

34 This example has also been used by Hernadi, Paul. 'On the How, What, and Why of Narrative', Critical Inquiry 7.1, On Narrative (1980): 201-203. Arheim, Rudolf, Art and Visual Perception: A Psychology of the Creative Eye, Berkeley: University of California Press, 1974.

35 Image from 'Father Christmas goes on Holiday by Raymond Briggs

36 Lessing, ed. McCormick, originally published, 1766, Laocoon: An Essay on the Limits of Paining and Poetry, John Hopkins Press, London.

school of 'mental imagery' is built around this ability of man to - 'see(ing) in the mind's eye'. This phenomenon can take place because our imagination, unlike our perception, is under the control of our will (and experienced as such) (Thomas, Nigel J.T., 2010). It is this power of visualization that is called upon to appreciate an SVN

Lessing in his book[37] mentions James Harris (1709-80) (as) one of the foremost scholars to suggest the possibility of conveying temporal movement through images says about painting –'Painting can imitate only by means of colour and figure. It can represent only one moment in time. Although it is motionless it can indicate motions and sounds as well as actions which are known (i.e. history)' (Lessing, 1766: xvi.)". We concur to the possibility of representing temporarily in a static image and thus propose the Static Visual Narrative. The characteristic features of the SVN are:

1. The SVN executed on a medium occupies surface area. For example an illustrated comic book runs over many pages, or a mural painting may cover an entire wall. The viewer has to unravel the story by exploring the surface area covered by the visual. Thus the story unfolds across space.

2. In the case of the SVN the image is fixed on the surface of the medium. That is to say it remains materially unchanging. Le Poidevin defines 'A static image (as) one that represents by virtue of properties which remain largely unchanged throughout its existence' (Le Poidevin, 1997:175). For example once a story has been painted or printed on a piece of paper it does not undergo much change except for maybe fading with time.

3. SVNs bank on the spectator's prior knowledge of the narrative. Only then can the viewer fully enjoy reading the SVN, as the intent of the visual narrative is to engage the spectator within it. 'Perception' and 'Memory' play an important role in this respect. The viewer has to recall the event in story and match it to the event portrayed in the SVN. The spectator already knows what has happened (the past) and what is to come (the future) but engages in unravelling the SVN as the designer has presented[38] .

4. The visual is fixed but the viewer or the viewer's eye is mobile. The SVN is viewed by a moving spectator, who finds connections between juxtaposed scenes that communicate a meaning. The spectator turns the pages or stands back in front of a sculptural panel; it is the eye that moves and explores the visual. Souriau illustrates this point by citing the example of viewing a statue ' His (the viewer's) movement around the statue brings to view, as it were, melodically, the various profiles, the different projections, shadow, and light; thus the most complete appreciation of the aesthetic complexity of the work is gained only be the moving spectator' (Souriau, 1949:295).

5. The viewer of the SVN decides the speed at which to view the image. The SVN by the fact that it is fixed permits the spectator to travel around the visual at leisure, allowing for pauses at any given point for as long as is desired or quickly skimming through the visual.

6. In an SVN the order of viewing is not determined; the spectator decides the order in which to view the SVN. A choice can be made as to where to begin viewing the SVN. Having known the story, one can decide to begin viewing the story from any given point in the narrative and go backwards or forwards accordingly. One can even begin

37 Lessing, ed. McCormick, originally published, 1766, Laocoon: An Essay on the Limits of Paining and Poetry, John Hopkins Press, London.

38 Professor Hernshaw refers to this as 'temporal integration', the bundling together in one extended stretch of time of memories and expectations (as quoted by E.H. Gombrich, 1964).

with the end and view the whole narrative in a flashback kind of manner. In other words the SVN can be read from beginning to end, vice versa or begin in media res as per the preference of the viewer.

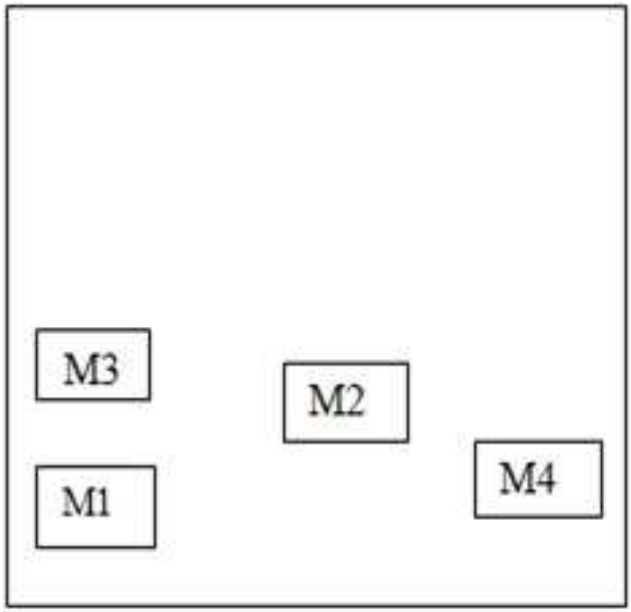
7. The viewer is in full control of the contemplation time or as Goswamy refers to it 'the ruminative viewing' i.e. time taken to carefully regard a work of art (Goswamy, 1998). The spectator is in control of the time taken for viewing the SVN.

Having explored the SVN, we now move towards the DVN.

8. Perception of movement in the SVN results from the active participation of the spectator. The viewer has to look at the SVN recall the story and engage in the process of narration. The SVN makes great demands on the viewer's 'Imagination'. The beauty of the SVN is that it only provides cues to the story in the form of visuals. It is up to the viewer to use those cues as a base to build the narrative.

An excellent example of a SVN is a panel from the Gates of Paradise that represents the story of Adam and Eve.

Show in the SVN (Fig.4), at the left bottom corner, we see God in the act of creating Adam (moment 1 – M1).



– M2). Show in low relief towards the left is Adam and Eve being tempted by the Devil in the form of a snake (moment 3 – M3). Finally on the right side, we see the couple being thrown out of the Garden of Eden by the angels on the orders of God (moment 4 – M4). Broadly speaking the narrative flows from left to right, but the viewer can read

39 Panel from Lorenzo Ghiberti's "Gates of Paradise", Florence Baptistery, Italy. Image Source –Web Gallery of Art.

the narrative from any point moving back and forth in the intrinsic story-time.

B) Dynamic Visual Narrative (DVN)

Explorations to add movement to frozen images had been the pursuit of many people[40] . The real breakthrough came in 1890 with the invention of a motor-powered camera that could photograph motion pictures - called a Kinetograph by W.K.L. Dickson (Tim Dirks). In early January 1894, The Edison Kinetoscopic Record of a Sneeze (aka Fred Ott's Sneeze) was one of the first series of short films made by Dickson for the Kinetoscope viewer (ibid). Thus, was born the Dynamic Visual Narrative.

By assigning the term Dynamic to this category of VNs, we refer to the ability of constantly changing images that is characteristic of this type. A movie (animation or live action) typically consists of a number of still images that is run at high speed giving the impression of temporal movement[41] . The story is constructed before the eyes of the spectator. Actors, scenes, duration of the event, actually physically move in time; albeit in a linear fashion. The visual is projected on a flat surface (Fig. 5) or on a display screens. In the case of DVNs visuals are replaced by new visuals at the same display space.

Fig. 5: A projected DVN

Fig.6: A metaphor of a cinematic experience[42]

In other words the physical screen space remains the same, the images projected on it keep changing. Slavoj Žižek

40 The invention of the Thaumatrope (the earliest version of an optical illusion toy that exploited the concept of "persistence of vision" first presented by Peter Mark Roget in a scholarly article) by an English doctor named Dr. John Ayrton, Paris in 1824. In the 1830s, moving images were produced on revolving drums and disks with independent inventions by Simon von Stampfer (Stroboscope) in Austria, Joseph Plateau (Phenakistoscope) in Belgium and William Horner (zoetrope) in Britain. See - The History of Film -http://www.filmsite.org.

41 Films are made up of a series of individual images called frames. These images are shown rapidly in succession, as a result of which a viewer has the illusion that motion is occurring. The viewer does not see the flickering between frames due to an effect known as persistence of vision. The eye retains a visual image for a fraction of a second after the source has been removed. Viewers perceive motion due to a psychological effect called beta movement. (ibid).

42 A still from the movie Possessed (1931; Director: Clarence Brown; Joan Crawford, Clarke Gable).

gives an interesting metaphor to express what he calls – 'the magic of the cinematic experience'[43] (Žižek, 2006). He compares the cinematic experience to be like that of a person standing in front of a passing train. The viewer is in a fixed spot, the train moves in before her and she can see what is going on inside the train through the windows[44] . Žižek demonstrates this with a clip from the film 'Possessed' where the actor stands in front of a train at is passes slowly by her allowing her a view of the happenings at the various windows of the many compartments (Fig. 6).

Characteristic of a DVN are.
1. The visual is constantly being replaced by new visuals on a stationary screen, moving the story ahead. Thus the story unfolds over time.

2. A DVN is composed of many still images that move at a high speed in a set sequence once they are given the command to move. The visual does not remain fixed to the screen unless paused intentionally. Thus the visual is in a state of constant motion.

3. In the case of the DVN, the story unfolds over time and the viewer need not know the story beforehand to make sense of the visual. The viewer (through the progression of the narrative) is introduced to the characters and is briefed about the background and circumstances of the story. The plot is revealed as time progresses and a narrative is woven sometimes using devices like flash-forwards and flashbacks, as in the case of the movie 'Momento[45]' .

4. The DVN moves in time while the viewer watches from a more or less fixed location. In other words the viewer views the film from a fixed position i.e. in front of the screen.

5. Which event should unfold in how much time is pre decided in a DVN. Progression of the narrative is due to an automated process that moves the film further in time. The viewer has limited control over the time one can spend viewing each event of the narrative in a DVN. The control is only limited to rewind or forward. In other words the viewer has no control over the pace of the film; it is fixed, constant, precisely measured and determined by the creator. Although experiments involving 'interactive cinema'[46] have been tried where the audience take an active role in the unfolding of the plot, but it has been limited to determining the direction in which the story moves.

6. The spectator has no say in the order the events of the film unfold. The sequence in which the events unfold is set.

43 Slavoj Žižek explores a number of films from a psychoanalytic theoretical perspective in a two-and-a-half-hour documentary directed and produced by Sophie Fiennes. The film The Pervert's Guide to Cinema (2006) is scripted and presented by Slavoj Žižek himself.

44 One cannot but notice the similarity in the form of a train having many windows and a film reel with frames.

45 Momento – (2000; Director: Christopher Nolan).

46 According to an article about the latest in film technology and cinema viewing – the German movie, Last Call, is the first ever interactive horror movie. When you go into the theatre, you text your phone number to a speed-dial database. During the movie, the protagonist makes a phone call to a random audience member and asks their advice. "Should I go up or down?" "Left or right?" "Should I help the creepy man wrapped in bandages, rocking back and forth on the floor, or should I look out for myself?" Voice recognition software means the character identifies what the audience member wants them to do and follows his or her instructions. See article – Horror Movie Takes Direction from Audience, http://www.tomsguide.com.

The viewer has no choice but to wait and watch how the story progresses.
Sometimes the whole narrative goes back to the start point and begins to unfold again from a different point of view like in the movie 'Run Lola Run'[47] . The flashbacks, flash-forward's etc, happen only in 'narrative time' as far as real time is concerned it has progressed in a linear fashion.

7. The time of contemplation exits but is cut short as the visuals in a DVN change frequently. This just about gives the viewer the chance to update oneself on the progression of the plot. Being preoccupied with this though; the contemplation time is something that a viewer snatches whenever possible while the DVN is in progress.

8. Perception of movement results from the physical change of visuals over time.
An important characteristic that distinguishes the DVN and makes it stand apart from the SVN is its ability to incorporate sound. Having looked at the DVN let us now turn our attention to the IVN.

C) Interactive Visual Narrative (IVN)
Rapid technological advances in the 20th century led to the evolution of yet another type of VN. As with the SVN and DVN, Interactive Visual Narratives (IVNs) are those, which fulfil three conditions – 1) that it is essentially visual in nature, 2) has a narrative aspect to it and 3) involves interaction from the viewer. Thus IVNs are a distinct category from interactive stories that could be only text based or oral narrative based.
The IVN began with the invention of the virtual space and navigation systems to access it. Beginning with the humble 2D animation of events as the viewer clicks a button to move ahead, IVN has how moved into the world of augmented reality where the viewer becomes part of the story. Here, we find a combination of characteristic of the DVN and the SVN. While in the DVN the visual is preset to move at a given speed in a predefined manner; in the SVN the visual lacks mobile capacity. In the IVN, one can experience the SVN which has dormant dynamic capability that can be activated on the intervention of the viewer. Thus the IVN can behave like the SVN or the DVN or can be composed with features of both SVN and DVN as designed by the creator. Additionally, like the DVN the IVN has the ability to incorporate sound and movement in virtual story space.

Let us take a look at the characteristic features of the IVN.
1. Although the IVN essentially unfolds across time as it is to be viewed through the medium of a screen, it has the possibility of being designed as a SVN and thus unfolding in space as well. For example the IVN can be paused by the viewer in order to view the visual that can be designed as a SVN.

2. The visual in an IVN can be designed to behave like an SVN at sometimes and the DVN at others. For example one event of the story may be rendered as an SVN and another as a DVN.

3. In an IVN the viewer in some cases may need to know the story beforehand. It is also possible for the viewer not to have an understanding of the story as the viewer explores the plot as she moves on.

4. The IVN has the mixed possibility of 1) being frozen in time while the viewer moves, 2) moving in time while the viewer watches from a more or less fixed location and also 3) moving with the viewer (as the case when the viewer plays the role of a character). The distinguishing feature of the IVN is the possibility of the viewer to interact with the visual. There is a whole range of IVN's that exist today that

47 Run Lola Run – (1998; Director: Tom Tykwer).

has various levels of viewer interaction. On one end of the spectrum is the IVN where the viewer interaction is limited to moving from one event to another, as in fig. 7, and on the other end is the total story experience were the viewer enters into the story world as a character and navigates through the plot, as in fig. 8.

Fig.7: An IVN where the viewer controls the movement from one event to the next[48] .

5. As the progression of the narrative is due to viewer intervention, the viewer makes a choice with regards to the pace of the unfolding of the story.

6. With regards to the order of unfolding of the story there are three possibilities that can occur – 1) if the IVN appears like an SVN, then the viewer is free to make a choice in arranging the sequence of events 2) if the IVN is presented in the DVN form then the viewer has no say in the order of appearance of the event and 3) the IVN can also allow the viewer to make a choice of the order in which the events of the story unfold.

48 A screen shot from BBC's site CBeebies - http://www.bbc.co.uk/cbeebies/

Fig.8: An IVN where the viewer plays a character in the story[49] .

7. The time of contemplation varies in the IVN. Sometimes the viewer can mull over a part of the visual for as long as one desires, at other times the viewer may have to act fast.

8. The perception of movement in an IVN can be caused by the participation of the viewer (if the IVN is designed as an SVN) or the changing of visuals (if the IVN is designed as a DVN). Additionally, the perception of movement can be actual if the viewer is part of the story.
The launch of the application for the Apple iPad – an interactive book called 'Alice in Wonderland for the iPad' earlier this year[50] is a pointer towards the direction in

49 A screen shot of the 'Samantha Swift and the Golden Touch Game. About the game: On a quest to recover Alexander the Great's Scroll of Wealth, archaeologist and adventurer Samantha Swift realizes that there's more to this mission than she first thought. Now she's racing against the clock to keep ancient powers from falling into the wrong hands! Travel to exotic locations as you discover the ancient secrets and mystery shrouding the famed Golden Touch!. Source: http://www.shinegame.com.

50 Alice for the iPad-Lite: Atomic Antelope, Release Date: April 01'10; source - http://apps.ipad-magic.com accessed 21 June'10.

which the future of VN is shaping. (...)Atomic Antelope embellished the pages with interactive, Monty Pythonesque animations that move when you touch or tilt the iPad (Dahliquist). The USP of the application of the laws of physics and gravity to the characters of the story opens new avenues of thought. Another feature to take note of is the possibility of experiencing the story differently every time one goes through it. With the advancement in technology IVN can transform the whole visual narrative experience. In conclusion we present a table marking the distinguishing characters of the SVN, DVN and IVN.

Distinction between DVN, SVN & IVN

As we have seen VNs can be categorised into three major types –SVN, DVN and IVN. In the table below we will mark the distinguishing characteristics of each as an aid to identifying each type.

Visual Narrative			
Distinguishing Characteristics	**Static Visual Narrative (SVN)**	**Dynamic Visual Narrative (DVN)**	**Interactive Visual Narrative (IVN)**
Manner of unfolding of the story	Unfolds in Space	Extends in Time	Extends in time with latent possibilities of unfolding in space
Visual appearance	Visual is fixed on the surface of the medium	Visuals are replaced in rapid succession at the same space	Visual appears to be fixed but can be replaced by visuals changing in rapid succession on trigger
Knowledge of the story	SVN's bank on the prior knowledge of the story	The viewer does not need to know the story prior to viewing	Viewers may sometimes need prior knowledge of the story; at other times it may not be necessary and in some cases the viewer decides how the story moves forward
Visual and Viewer Interaction	The visual is fixed but the viewer (imagination) is mobile	The visuals move but the viewer is at a fixed location	Visual can be fixed or mobile, likewise the viewer can be fixed or moving or even take on the role of a character in the story
Speed of Viewing	The spectator can decide the speed of viewing	Speed of viewing predetermined by creator of the DVN	Sometimes viewer can determine the speed of viewing, at other times the speed is predetermined
Sequence of Viewing	The spectator can manipulate the sequence and the pace of viewing	The spectator has no control over the sequence or pace of viewing	The spectator can manipulate the sequence and the pace of viewing sometimes
Contemplation time	Viewer has ample contemplation time	Contemplation time restricted	Contemplation time can be at times ample and at times restricted
Perception of Movement in the VN	Movement results from active participation of the viewer	Movement is due to the rapid change of visuals	Movement can be caused by the active participation of the viewer as well as the rapid change of visuals
	Examples of SVNs: Cave paintings, Comics, Graphic Novels, Picture Books, Narrative Scrolls, Narrative on Objects, Miniature paintings, Murals, Info Graphics, etc.	Examples of DVNs: Animation, Drama, Bioscope Puppet Shows, Live Action Films.	Examples of IVNs: Interactive story books, Interactive Games, iPad – Alice in Wonderland

Conclusion

As human beings we have found a novel way of telling stories by illustrating those using visuals. We do this with a motive of communicating to an audience; explaining what, how, where, and in what manner the event took place. We employ the help of VNs to do this. The technique of illustrating stories has existed and continues to exist today. There is a large body of work that primarily deals with research on visual stories. These have been carried out and investigated in isolation by scholars under various headings such as comics, narrative art, animation, films etc. As we have proved through this paper that the fields mentioned above fundamentally have a common characteristic; in that they all narrate stories using visuals. We have thus established the need to acknowledge this feature and recognize the VN as a distinct category. It is therefore essential to segregate, distinguish and define 'Visual Narratives (VN)' as a sub category within the vast domain of Visual Studies. We propose VN be established as a distinguished field of study under the domain of Visual Studies.

Furthermore, VNs can be expressed using moving images or a fixed image and in recent times with an advancement of technology a combination of both the moving and fixed types. To these we assign the terms Static Visual Narratives (SVN), Dynamic Visual Narratives (DVN) and Interactive Visual Narratives (IVN) respectively based on the obvious difference with respect to the temporal aspect and viewer interaction. Comics, animation, history paintings are types of VNs. A visual that tells a story on a static medium (wood, metal, canvas, books, walls, objects etc) is a SVN. As the film or animation expounds the story employing rapidly changing images; the film is a DVN. Interactive storytelling sites, and interactive games with a narrative aspect are examples of the IVN. These sub types operate as further categories under the umbrella of VNs. Defining VN and its sub types and providing a systematic categorization of VNs marks it as a specialized area of work. Doing so establishes the VN as a distinct entity and provides scope for structural analysis. This in turn helps students of VNs identify where their research area fits; and shows them similar areas of studies where they can interact and share their findings, furthering the interest of the domain. The system proposed in this paper aims at bringing together isolated areas of work that can help understand the varied aspects of VNs. In addition it opens up new areas of research for the student of VN.

Works Cited

National Gallery of Art. (2010). Watson and the Shark . Retrieved June 15, 2010, from National Gallery of Art, Washington DC: http://www.nga.gov

Abbott, H. P. (2008). The Chambridge Introduction to Narrative.

Application iPad Alice for the iPad-Lite – Atomic Antelope. (2010). (iPad Applications) Retrieved June 21, 2010, from iPad Magic: http://apps.ipad-magic.com

Arheim, R. (1974). Art and Visual Perception: A Psychology of the Creative Eye. Berkeley: University of California Press.

Arheim, R. (1969). Visual Thinking. Berkeley: University of California Press.

Atomic Antelope . (n.d.). Alice for the ipad. Retrieved June 18, 2010, from http://www.atomicantelope.com/alice/

Barry, A. M. (1997). Visual Intelligence: Perception, Image And Manipulation in Visual Communication. Albany: State University of New York Press.

Blake, R., & Lee, S.-H. (2005). The Role of Temporal Structures in

Human Vision. Behavioral and Cognitive Neuroscience Reviews , 4 (21), 21-42. SAGE full-text collections. IIT Bombay Lib., 30 September 2009. <http://bcn.sagepub.com>.

CG Entertainment, Inc. (2002). Edge No.5, Chapter1: The Way of the Rat. Florida: CG Entertainment, Inc.

Chatman, S. (1980). Story And Discourse: Narrative Structure in Fiction and Film. London: Cornell University Press.

Dahliquist, D. (n.d.). Alice for the IPad Brings Pop-up Books Into the 21st Century. (PCWorld Communications, Inc. 501 Second St., San Francisco, CA 94107, USA.) Retrieved June 19, 2010, from PCWorld Communications: http://www.pcworld.com

Dami Editore, Italy. The Mini Treasure Chest of Great Fairy Tales. Hong Kong: Tormont International Ltd.

Dirks, T. (1996, May). AMC Filmsite. (T. Dirks, Editor, L. Rainbow Media Holdings, Producer, & American Movie Classics LLC) Retrieved May 18, 2010, from Filmsite.org: http://www.filmsite.org

Douglas Harper, H. (n.d.). "movie." Online Etymology Dictionary. Retrieved June 2010, 22, from dictionary.reference.com: <Dictionary.com http://dictionary.reference.com/browse/movie>.

Douglas Harper, H. (n.d.). "pictorial." Online Etymology Dictionary. Retrieved June 17, 2010, from <Dictionary.com http://dictionary.reference.com/browse/pictorial>.

Eisner, W. (2008). Graphic Storytelling and Visual Narrative. Florida: Poorhouse Press.

Encyclopedia of World Art. (1967). Space And Time (Pierre Francastel) (Vol. XIII). London: McGraw-Hill Publishing COmpany Ltd. .

Encylopedia of Irish and Word Art. (n.d.). (N. Collins, Á. N. Muireadhaigh, Editors, & visual-arts-cork.com) Retrieved June 16, 2010, from Encylopedia of Irish and Word Art: http://www.visual-arts-cork.com

Gifford, K. (1998). "Narrative Painting". (K. Gifford, Editor) Retrieved June 15, 2010, from Humanities Web Website: http://www.humanitiesweb.org/?s=g&p=t&a=d&ID=143

Gombrich, E. H. (1964). Moment and Movement in Art. Journal of the Warburg and Courtauld Institutes , 27, 293-306.

Gombrich, E. H. (1982). The Image And The Eye: Further studies in the psychology of pictorial representation. Oxford: Phaidon Press Ltd.

Goswamy, B. N. (1998). Coming to Terms with Time: Apects of Narrative in the Visual Arts. In J. Jain (Ed.), Picture Showmen: Insights into the Narrative Tradition in Indian Art (Vol. 49, pp. 32-41). Mumbai: Marg Publications.

Hawkins, J. M. (1989). The Oxford Paperback Dictionary (Third ed.). Oxford: Oxford University Press.

Hernadi, P. (1980). On the How, What, and Why of Narrative. Critical Inquiry , 7 (1, On Narrative), 201-203.

iTunes. (n.d.). Alice for the iPad by Atomic Antelope. (A. Inc., Producer) Retrieved June 18, 2010, from http://itunes.apple.com

Kepes, G. (1995). Language of Vision. New York: Dover Publication.

Kress, G., & Leeuwen, T. v. (1996). Reading Images: The Grammar of Visual Design. London: Routledge.

Le Poidevin, R. (1997). Time and the Static Image. Philosophy , 72 (280), 175-188.

McEntegart, J. (2010, March 11). Horror Movie Takes Direction From the Audience. (Best of Media Group) Retrieved May 18, 2010, from Tom's Guide US: http://www.tomsguide.com

Murray, J. K. (1995). Buddhism and Early Narrative Illustration in China. Archives of Asian Art , 48, 17-31. JSTOR. IIT Bombay Lib., Mumbai, Maharashtra. <http://www.jstor.org>.

Murray, J. K. (1998). What is "Chinese Narrative Illustration"? The Art Bulletin , 80 (4), 602-615. JSTOR. IIT Bombay Lib., Mumbai, Maharashtra. <http://www.jstor.org>.

Perkins, A. (1957). Narration in Bablonian Art. American Journal of Archaeology , 61 (1), 54-62. JSTOR. IIT Bombay Lib., Mumbai, Maharashtra. <http://www.jstor.org>.

Pick, H. L., & Saltzman, E. J. (Eds.). (1978). Modes of Perceiving and Processing Information: A volume based on conferences sponsored by the Committee on Cognitive Research of the Social Science Research Council. New Jersey: Lawerence Erlbaum Associates.

Pincus, E. (1972). Guide to Filmmaking. Signet, New American Library, A Division of Penguin Books, USA Inc.

Pollen, J. H. (2005). A Description of the Trajan Column,. London: Elibron Classics.

Richardson, B. (2000). Recent Concepts of Narrative and the Narratives of Narrative Theory. Arts Publication . Northern Illinois University.

Ricoeur, P. (1980). Narrative Time. Critical Inquiry , 7 (1, On Narrative), 169-190.

Roam, D. (2009). The Back of the Napkin: Solving Problems and Selling Ideas with Pictures. London: Marshall Cavendish Limited.

Robin Varnum, C. T. (Ed.). (2001). The Language of Comics: Word and Image. University Press Of Mississippi.

Rudrum, D. (2005). From Narrative Representation to Narrative Use: Towards the Limits of Definition. Narrative , 13 (2), 195-204.

Scholes, R., Phelan, J., & Kellogg, R. (2006). The Nature of Narrative. New York: Oxford Universtiy Press.

Souriau, E. (1949). Time in the Plastic Arts. The Journal of Aesthetics and Art Criticism , 7 (4, Special Issue On Aesthetics in France), 294-307. JSTOR. IIT Bombay Lib., Mumbai, Maharashtra. <http://www.jstor.org>.

Strain, M. (2010, May 21). Curiouser and curiouser: Alice in Wonderland through the iPad. (Can Do Media Inc.) Retrieved June 19, 2010, from Vancouver Observer: http://www.vancouverobserver.com

Sukla, A. C. (2000). Art and Representation: Contributions to Contemporary Aesthetics.

Thomas, N. J. (Last modified 2010, April 2). "Mental Imagery". (E. N. Zalta, Editor, & Metaphysics Research Lab, CSLI, Stanford University) Retrieved May 19, 2010, from The Stanford Encyclopedia of Philosophy (Summer 2010 Edition): <http://plato.stanford.edu/archives/sum2010/entries/mental-imagery/>.

Ware, C. (2008). Visual Thinking for Design. Amsterdam: Morgan Kaufmann Publishers.

Weitzmann, K. (1970). Illustrations in Roll and Codex: A study of the origin and method of text illustration. Princeton: Princeton University Press.